The question as to the propriety of the induction of premature labour, in cases of excessive vomiting during pregnancy, involving the life of the mother, is mooted by Dr. Bedford. Although he does not answer it definitely, either affirmatively or negatively, believing it to be one of sound judgment rather than of controversy, and to be determined by "a searching review of all the surrounding circumstances of each individual case," yet he evidently believes that a resort to it is justifiable in order to save the lives of both mother and child in certain cases of uncontrollable vomiting occurring in the pregnant female. To dispute the possibility of the occurrence of such cases would be folly: we can only say that, in a practice of forty-five years, we have never met with any such.

The subject of abortion—its causes, phenomena, and management—is treated of at great length, and with uncommon ability.

We would direct attention to the chapters on puerperal fever, puerperal convulsions, and puerperal mania. In these, Dr. Bedford has succeeded in presenting, with great conciseness, correct views in respect to the pathology of the affections referred to, and a fair exposition of the most judicious therapeutical plan for their treatment.

We cannot compliment the author upon the excellency of his pictorial illustrations. Coarser specimens of wood engraving than those the work before us presents our eyes have seldom encountered; while the four coloured lithographic plates fall sadly behind those of Montgomery, from which they profess to be copied. The mechanical execution of the work, in other respects, is unexceptionable. D. F. C.

ART. XVII.—*Placenta Prævia; its History and Treatment.* By WILLIAM READ, M. D., etc. etc. 8vo. pp. 340. Philadelphia, 1861: J. B. Lippincott & Co.

DR. READ has here furnished us with a most interesting book, on a most important subject. A case of labour can but seldom present itself in which promptitude of action in the right direction is more essential to insure the safety of mother and child than one complicated with placenta prævia. There is no case in which is so imperatively demanded, on the part of the accoucheur, the complete exercise of all his faculties, united to perfect coolness, and sobriety of judgment. Error here admits of no rectification; there is no time to undo what has been done wrong, while a single false step may place the patient beyond the power of rescue.

For a long time it was believed that the proper treatment of placenta prævia was fully settled, until about seventeen years ago Professor Simpson advocated the plan of artificially detaching the placenta, as the rule of practice under certain limitations. The promulgation of this new plan gave rise to not a little controversy among obstetricians, and even at the present time there is much difference of opinion as to the extent of its applicability, and its actual value in comparison with that previously pursued.

The question in respect to the treatment of placenta prævia is still an open one. To determine whether the long-established practice of speedily terminating the labour by a resort to version by the feet, or the more recent proposition of an artificial detachment of the placenta, with no further manual interference is best adapted to preserve in the larger number of instances the life of the mother and of her child.

The question requires a more extended basis of statistical evidence—the result of a careful analysis and collation of a sufficiently extended series of well-attested cases, of which we have a full and accurate history.

To present such statistics is the object of Dr. Read in the work before us. He has, with no common amount of industry and research, collected over *one thousand cases* of placenta prævia. All the particulars in respect to the great majority of which he assures us have been obtained from the original reports. These cases he has arranged in a tabular form. The first eight tables embrace 891 cases quoted from the original histories, and four other tables, which follow

as an appendix, embrace 114 cases, obtained at second hand. Presenting a total of 1005 cases.

Table 1, of the first series, exhibits the results of 52 cases in which the placenta was spontaneously expelled, and the child born by the unassisted uterine contractions. All these cases are set down as having terminated favourably in respect to the mother; in only 11 was the child born alive. The presentation of the placenta was complete in 11 cases, partial in 7. In 14 cases the head of the child presented; in 3 the head and arm; in 2 the back; the feet and the abdomen each in one case, and in one case the funis, with both arms and one leg.

From the facts presented by this table it is shown that the death of the child does not necessarily result when the placenta is first thrown off.

Table 2 exhibits the results of 26 cases of spontaneous separation of the placenta, with artificial delivery of the child, in consequence of the inefficiency of the pains. Twenty-one of these cases terminated favourably in respect to the mother. The fate of the child is noticed in only 19 cases, in 2 only are the children reported as having lived. Both these were delivered by turning, and immediately after the expulsion of the placenta. In one the shoulder presented, in the other the presentation is not stated. In 17 cases in which the children are reported as having died, 10 were delivered by turning, 5 were mutilated, and 2 drawn down by the presenting feet. The presentation of the placenta is noticed in one instance only—when it was partial. In 3 cases the child's head presented; in 8 its arm, in one of these with the cord; in 3 its shoulder, in two of these with the cord also; in 2 its foot; in 1 its elbow; in 1 its umbilicus; and in 1 its knee, with cord first, then its breech.

Table 3 exhibits the results of 31 cases, in which the placenta was artificially separated, and the child delivered by the natural pains. Twenty-eight of these terminated favourably for the mothers. The children were born living in three instances, all of which were presentations of the head alone. The presentation of the placenta was complete in 16 cases, partial in 7 cases. The child presented by the head in 23 cases—in 3 of these with prolapse of cord; by head and arm in 1 case; by head and hand in 1 case; by the feet in 2; and by the breech in 1.

Table 4 presents the results of 51 cases in which both placenta and child were artificially delivered. In 40 of these the mothers survived, but the children in only 9 cases. The presentation of the placenta is recorded in 31 cases—in 25 of which it was complete, and in 6 partial. In only 29 cases is the presentation of the child given. It presented by the head in 14 cases; by the head and arm in 1; by the arm in 7; by the arm and cord in 1; by the shoulder in 2; by the breech in 1; by the feet in 2; and in 1 the presentation was of the funis. There were 39 cases of turning; 6 of craniotomy; 4 of forceps; and *two* of delivery by hand. The result to the mother was in the cases of turning 31 recoveries to 8 deaths; in those in which the forceps were employed, there were 2 recoveries and two deaths; in those in which craniotomy was performed, there were 5 recoveries and *one* death; in those where the delivery was by the hand simply, there were 2 recoveries and *no deaths.*

Table 5 presents the results of 123 cases in which the placenta was partially detached, followed by the spontaneous delivery of the child. The mothers, in 109 of these cases, recovered. In 111 cases in which the result to the child is given, 56 are reported to have lived. The presentation of the placenta was complete, or nearly so, in 18 cases; partial in 72; a large portion of it protruding through the os in 3; and nearly detached in *one.* The child presented in 76 instances by its head, in 6 by its breech, and by its feet in 4. In 37 cases, the presentation is not given.

Table 6 presents the results of 557 cases in which, with partial detachment of the placenta, the artificial delivery of the child was found to be necessary. In 416 of these cases the mother recovered. In 223 cases, the children are stated to have been born alive, and dead in 246 cases; leaving 88 cases in which the result in respect to the children is not recorded. In 310 of the cases only is the presentation of the placenta given; *viz.*, 193 in which it was complete, and 117 in which it was partial. The head of the child presented in 109 cases—in 6 of these with the cord, in 1 with the hand; the feet presented in 13 cases; the arm

in 6; the breech in 7; the shoulder in 5, in one case, with prolapse of the cord: the knee in one case; the foot and knee in one; foot and cord in one; right hip in one; umbilicus in one; and in one case the child presented transversely. In 410 cases, the presentation is not given.

Table 7 presents the results of 39 cases in which the placenta was perforated, and the child variously delivered. In 29 of these cases, the mother survived. Twelve of the children are reported to have lived, and 20 to have died. In 7 of the cases, the result in respect to the children is not stated. The presentation of the placenta is stated to have been, in 25 cases, complete, or very nearly so. The child presented by the head 16 times, and by the foot and hand or arm twice. In 21 cases, the presentation is not stated. Delivery was effected by turning in 28 cases; by the efforts of nature in 7; craniotomy was performed in one case; forceps were used in one case; and the child was drawn down by the feet in two cases. Of the mothers who died, all were delivered by turning, with one exception—the case in which craniotomy was performed.

Table 8 presents the particulars of 32 cases in which the mother died undelivered. Although, as Dr. R. remarks, these cases have no weight in determining the relative value of the different modes of treatment, they are, nevertheless, important in determining the fatality of placenta prævia. The presentation was, in 20 of these cases complete, in 2 partial. The particular extent of its presentation is not noted in 10 cases. The presentation of the child is recorded in only 7 cases; in 6 of these it was the head, in 1 the breech.

Previously to entering upon the statistics of placenta prævia, Dr. R., after presenting a very complete sketch of the literature of the accident from the earliest period of medical history up to the year 1776, when Leroux de Dijon, in his work on the hemorrhages incident to parturient females, first pointed out the true character of the loss of blood attendant upon cases with placental presentation, and indicated the tampon as the best and most certain means for its arrest. Dr. R. discusses the frequency of the occurrence of the accident—so far, at least, as we may be permitted to draw any conclusions in this respect from the facts in our possession; its diagnosis; its physiology—involving, of course, the physiology of the placenta; and the special causes of the hemorrhage which takes place in this accident so soon as the term of gestation draws towards a close and the process of labor sets in. Each of these points is discussed with a fulness commensurate with its importance and the extent and character of our acquaintance with it. The four chapters of the treatise devoted to the consideration of the topics just indicated, are replete with interest; they exhibit throughout, in a very favourable light, the capacity of the author for the faithful investigation of the questions at issue in respect to the several subjects of which he treats, and his entire familiarity with the contributions towards their elucidation that have been placed on record at different periods and by different authorities.

This portion of the work forms an almost essential introduction to the analysis and collation of the cases collected by Dr. R. Although in respect to all that concerns the progress and results of placenta prævia, and to the treatment best calculated, when it is present, to save the life of both mother and child, it is scarcely possible to arrive at a safe and certain decision, excepting from ample clinical experience; still, a clear understanding, of the nature of the utero-placental connection, and the cause of the hemorrhage which results during labour, when the placenta is implanted at or over the os uteri, is all important to enable us to employ understandingly whatever facts are supplied us for the solution of the momentous question, What is to be the conduct of the obstetrician when he meets with a case of placental presentation?

We present entire the general summary of the results which Dr. R. has deduced from the analysis of the cases of placenta prævia collected by him.

In introducing this summary he remarks that of all the cases he has tabulated six hundred and seventy, or more than two-thirds, come under the denomination of "partial presentation," showing, most conclusively, that the method proposed by Prof. Simpson, will be available in only a small fraction of cases, and that the old practice of turning and delivering by the feet, without disturbing the connections of the placenta any more than is necessary for the purpose, must.

after all, be our main resort—and the method which in the mass of cases coming under charge, will most likely be required.

The following are the general conclusions at which Dr. R. has arrived from the data accumulated by him:—

"1st. The danger to the mother in placenta prævia *increases* as the period at which the labour comes on approaches the full term. A result rather to be expected from the increased capacity of the uterine vessels, as pregnancy advances to its termination. It is, therefore, better to terminate the labour, after it has really begun, as soon as compatible with the safety of the patient, than to endeavour to conduct the pregnancy to the full term.

"2d. The danger to the mother is less when the os uteri is completely covered, than when a portion only is involved in the attachment of the placenta, and least of all, where the attachment becomes nearly or quite central with reference to the os. Under these last conditions there is a strong probability, if the contractions are vigorous enough, that the placenta will be thrown off, and expelled into the vagina, and the hemorrhage be checked.

"3d. The *condition* of the mother is a much more important element in making a prognosis of the case, than the amount of blood lost; some constitutions being very much less susceptible to the effect of depletion, and capable of sustaining a greater amount of hemorrhage without being unfavourably affected, than others. The condition of the mother, then, should be most carefully watched, and the appearance of any symptoms indicating debility, or a tendency to collapse, should be the signal for the adoption of such remedies, or such a course as will the most speedily and safely insure the delivery of the child. And they should be put into effect without any delay, always bearing in mind the fact, that operations which are perfectly safe for the mother, when her vital power is comparatively unimpaired, becomes almost certainly fatal, if performed when she has become exhausted by hemorrhage and suffering.

"4th. In those cases where the pains are vigorous, and show a disposition to be permanent—the head presenting, the os in good condition, and the strength not materially impaired—*rupturing the membranes*, by letting off the waters, and bringing the child's head down upon the os, will, in most instances, be enough to check the bleeding, and place the mother in a safe condition. When, however, a want of tonic power is manifested, or it is probable that resort must be had to forced delivery, the discharge of the waters in this way will only increase the difficulty of the operation, and the danger to the mother.

"5th. The danger to the mother is materially increased by artificial delivery. But the same statistics which show this result, also make it evident that this increased fatality is owing, *not so much to the operation itself*, as to the enfeebled and exhausted condition of the mother at the time; and that, with a favourable condition on the part of the mother, there is no more danger in resorting to it in placenta prævia, than in ordinary cases of difficult labour.

"6th. The effect of artificial delivery to endanger the life of the mother in placenta prævia, being, therefore, almost directly proportionate to the degree of exhaustion under which she labours, it should be the aim of the practitioner to perform this operation, before such a state is reached; always bearing in mind the remark of Dr. Churchill, that, 'it is peculiar to midwifery operations that they form an ascending series, increasing in gravity from the simplest to the most severe—no two being equal, and therefore, in considering the suitability or practicability of any one, we do so with the knowledge that if the one we prefer do not succeed, we must have recourse to another more severe and more dangerous.'

"7th. If, from the progress of the case, or the conditions of the labour, a resort to artificial delivery must be finally had, it should not be delayed an instant beyond the time when the dilatation, or dilatability of the os uteri permits the introduction of the hand into the uterus. The danger to the mother from forced delivery being directly proportionate to the degree of exhaustion under which she labours.

"8th. When from the rapidly failing condition of the mother, or the presence of any cause rendering artificial delivery impossible, a resort to the foregoing is forbidden, the placenta should be wholly separated from the uterus, and such

remedies made use of (as one of which our attention is directed to transfusion) as will recruit the strength of the mother, until reaction having been established, she can be delivered in whatever way may be deemed best.

"9th. The tampon may be used advantageously in all those cases where, with an amount of flooding, sufficient to affect materially the constitution of the mother, the os uteri remains so rigid that it is impossible to perform artificial delivery. But, while under these circumstances, it is important to gain time for the dilatation of the os, and at the same time prevent the hemorrhage from too speedily exhausting the mother; under an opposite state of things a resort to the tampon, by inducing this temporizing policy, will often cause a loss of valuable time, and in this way make just the difference between a safe and a fatal issue. As the effect of this application is not only to check the hemorrhage, but also to excite labour-pains and dilatation of the os uteri, it is totally forbidden, in all cases where either or both of these results may not be desired.

"10th. The effect of ergot being of a twofold nature, according to the condition of the system—ecbolic, or parturient when the nervous energy is undiminished, and stimulant when there is a want of this—it should not be administered, when there is a probable necessity of terminating the labour by an operation, unless at such an interval, that the effect of it is either exhausted, or will not come on until after the operation is finished, or the condition of the mother is such that it will act merely as a stimulant.

"11th. In all cases where the exhaustion is excessive, and version is the only alternative, after the feet have been brought down, the body of the child should be left undelivered, until the uterus has been roused to contract, and a firm condensation of its walls has been secured; or, at least, the body should be withdrawn so slowly as to prevent the evil consequences which sometimes follow too sudden delivery."

From a careful study of the foregoing tables, which present, confessedly, the best authenticated and most extended series of statistics in reference to the subject of placenta prævia that have been as yet compiled, it will be found that the largest amount of safety is afforded to both mother and child, in cases of placental presentation, by an early and complete separation of the placenta, while the completion of the labour is trusted, in every case where it is possible, to the natural efforts of the uterus. The tables exhibit, also, in the strongest point of view the extreme danger to the mother attendant upon the former practice of breaking through the placenta, or even detaching it at one of its edges, for the purpose of reaching the feet of the child to bring these down and thus effect its delivery.

In the July (1861) number of the *Glasgow Medical Journal*, there is a communication from Dr. Chas. Clay, of Manchester, late Senior Medical Officer of St. Mary's Hospital of that place, and Lecturer on Midwifery and Diseases of Women and Children, on the subject of placenta prævia. Presenting as it does the result of a long and extensive experience in obstetrics, the communication becomes, in this respect alone, one of very considerable interest and importance—an interest and importance which are augmented by the confirmation the observations of its author affords to the general conclusions deducible from the ample statistics collected and arranged by Dr. Read.

"In cases of placenta prævia," Dr. Clay remarks, "repeated examinations cannot be too severely condemned. The one examination to ascertain the facts of the case should, if possible, be followed by prompt and energetic means to check the hemorrhage by detachment, and thus facilitate subsequent delivery by the efforts of nature only. If the hemorrhage ceases on the detachment of the placenta, the delivery may with great propriety be waited for, and without danger. I have scarcely known an instance to the contrary. In reference to the old plan of version and immediate delivery, for which the detachment of the placenta is proposed as a substitute, there is in the first place the heavy rate of mortality of 1 in 3 to the mother and 1 in 2 to the child, increased considerably if those cases are treated separately. Where the turning and delivery are effected when the dilatation of the os uteri has only just begun, that is, only to admit the point of one finger, or to within the size of a shilling at most—a rate of mortality would be shown which I do not hesitate to place at near 50 per

cent. to the mother, and almost universally fatal to the child. These figures have to be compared with 1 in 44 to the mother, and 1 in 5 to the child, where the placenta is detached. Secondly, there is the probability of means having been previously tried to check the hemorrhage by rupturing the membranes, or giving ergot, *or both;* either of which will immensely increase the difficulties and dangers attendant on subsequent version. Thirdly, if the os uteri is but very slightly dilated and not disposed to do so, the violence done by attempting to turn is very serious and the difficulties of version increased. Fourthly, if the hemorrhage occur before the period of utero-gestation is completed (the seventh month for instance), the os is certainly not prepared for *extensive* dilatation, and I do not believe it ought to be subjected to such extreme treatment. Fifthly, the danger of waiting for a sufficient state of dilatation to effect version judiciously (say to the size of half-a-crown, as generally admitted by the best authorities), and the great loss of blood in the interim, when the hemorrhage can be at once checked and the waiting for natural expulsion justified, by the simple process of detachment. Sixthly, in almost all cases the prostration is often so great that even the necessary efforts of version will in very many instances hasten death.

"I am convinced from long experience, that the dangers of version and hemorrhage may in a great measure be done away with by the simple detachment of the placenta. I have never known it to fail, nor do I believe it will ever fail, if the detachment is completely and properly effected. We have also the highest authorities for stating that the arrest of hemorrhage is complete in 19 out of 20. If even then for the sake of argument we admit one failure in twenty cases, the results of detachment would stand immeasurably superior to the old (and I trust soon to add obsolete) system of version and immediate delivery."

"It has been objected," says Dr. C., "to detach at the seventh month, the os not being dilatable; but I have found it as easy dilatable at the seventh as at the ninth month, I mean *so far* as is necessary for detachment only, and therefore believe the objection to be more ideal than real. Then, again, if it be an objection, how much more objectionable must it be to dilate more extensively as in version and delivery, where the violence must of necessity be greater? Others argue that the fœtus may be retained for days after the detachment, and fever may arise, but as no facts have been advanced to confirm such an opinion, it can only be entertained as a mere supposition. I have never seen the fœtus retained, and consequently no case of fever from such a cause has ever come under my notice, and certainly it does not apply to cases of fœtus dead *in utero* from other causes. After all, there is such a remarkable difference in the statistics on these important questions, that I should consider any person reckless indeed of human life, who would advocate turning and delivery in cases of placenta prævia in preference to detaching the placenta, if at all aware of these results. But I think few could be found to go further than either of these doctrines, and advocate forcible dilatation at early periods, or attempt turning with the os only capable of receiving the point of the forefinger, or at most dilated to the size of a shilling; increasing the already too great mortality, and adding greatly to the future difficulties to be contended with."

"In conclusion," Dr. C. observes, "I have never witnessed any bad consequences from detaching the placenta; there is infinitely less violence done, the danger is much reduced, future difficulties are of less importance, and the results far more favourable. And with the accumulated facts of the past forty years, from individuals of the highest standing in the profession, we may safely hope never so far to retrograde as to adopt the old and barbarous system of boring through the placenta, turning, and delivering the child. But even if we should be so far led astray as to accept this old barbarism, let us at least escape the opprobrium of attempting such practices in the earlier stages of dilatation of the os uteri, and *knowingly* increasing all the dangers attendant on such cases."

D. F. C.